LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



OFFICE OF FISHERIES INLAND FISHERIES SECTION

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

LAKE ST. JOSEPH

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

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LAKE ST. JOSEPH HISTORY

GENERAL INFORMATION

Date reservoir formed

Approximately 3,000 years ago – naturally separated oxbow of the Mississippi River

Impoundment

Owner – State of Louisiana

Purposes for Creation – historic channel of the Mississippi River, water level maintained for agricultural irrigation and recreational purposes

Size

1,200 acres, shown below in Figure 1.



Figure 1. Aerial photo of Lake St. Joseph in Tensas Parish, Louisiana.

Watershed

Approximately 14,000 acres, watershed: lake ratio = 14:1

Pool stage

66.0 feet Mean Sea Level (MSL)

Parish/s located

Tensas Parish

Border waters

Clark Bayou drains the lake to the west. Lakes Yucatan and Bruin are nearby. There is a direct connection with Lake Bruin during high water periods via an irrigation ditch which enters Lake St. Joseph near its south end.

Spillway (Figure 2)

The spillway (Figure 2) is a concrete trough design located in Clark Bayou. The total spillway length is 42 ft., which is a total of the two 21 ft. sides.



Figure 2. Photo of the Lake St. Joseph spillway and water control structure.

Drawdown description

The drawdown structure is contained within the spillway structure (Figure 2). A stack of several stop logs are operated with a manual crank. The stop logs are eight feet long and should provide for at least five feet of dewatering. A new stop log gate assembly was

installed in 2013.

Who controls

The control structure was constructed and is owned by the Tensas Parish Police Jury (TPPJ). The Lake St. Joseph Recreation and Water Conservation District operates the control structure under supervision of the TPPJ. Stop logs have been removed to alleviate flood conditions on the lake, but the current structure has not been used for a lake drawdown.

LAKE AUTHORITY

Association

The Lake St. Joseph Recreation and Water Conservation District is appointed by the Tensas Parish Police Jury to act as the official governing body. The current president and person of contact is Randy McDonald of Newellton, LA (office phone: 318-467-5154, mobile phone: 318-282-4542).

Authorization

Authorization has been granted by Act No. 328 of the 2003 Regular Session of the Louisiana Legislature and defined in R.S. 38:3087.191 – 3087.207 (APPENDIX A).

ACCESS

Boat Ramps

A public boat ramp is located at the north end of the lake in Newellton near the intersection of LA highways 605 and 887. A nominal fee is required for launching.

Piers

None

State/Federal/Municipal Facilities

None

SHORELINE DEVELOPMENT

Residential

There are no major residential developments on Lake St. Joseph; however, there are several residences and camps located around the shoreline.

Agricultural

Lake St. Joseph lies within an agricultural row crop area. Cotton, corn, wheat, and soybeans are typically grown in close proximity to the lake.

PHYSICAL DESCRIPTION OF LAKE

Shoreline length

18 miles

<u>Timber type</u>

Bald cypress (*Taxodium distichum*) is common around the shoreline of Lake St. Joseph and is more prevalent in the southern end of the lake.

Average depth

2.5 ft.

Maximum depth

6 ft.

Natural seasonal water fluctuation

1 ft. -2ft.

EVENTS/PROBLEMS

Sedimentation/Accretion

Lake St. Joseph is now in the latter stages of oxbow succession, which means the historic river channel is nearly filled from sedimentation. Increased agricultural activity around the lake over the past century has greatly accelerated this process. The lake bottom now consists of a deep layer of silt, with the depth at pool stage less than three feet in much of the lake. In addition to impairment of fish and wildlife habitat, the shallow nature of the lake has also reduced its recreational appeal. Boating is difficult, especially when the lake is below normal pool stage. Gamefish species abundance is relatively low and is attributed to the impaired habitat, specifically poor available spawning substrate, lack of open water cover, and poor water quality. Prior to construction of the water control structure in Clark Bayou, lake levels fluctuated naturally with backwater from spring floods flowing freely into the lake. Soon after water levels were maintained in 1960, year round fishing became possible and angling for sunfish was reported to be excellent. Lake St. Joseph was a popular fishing destination in the 1960's and early 1970's and several boat launching sites were in operation on the lake. However, the lack of annual fluctuation eventually led to increased accumulation of sediments and an associated decrease in lake depth. The current physical nature of the Lake St. Joseph is conducive to high summertime water temperatures and turbidity (planktonic and suspended sediments). These conditions limit the dissolved oxygen content in the water, likely to a point where most fish species become stressed. Numerous fish kills have also been attributed to these factors.

Proposed Aquatic Restoration Plan (2003)

An aquatic restoration plan was submitted to the Corps of Engineers (COE) by the TPPJ in 2003. The project was considered under Sec. 1135 of the Water Resources Development Act of 1985. The stated goal was to return Lake St. Joseph to an earlier stage of natural oxbow succession. Habitat has also been further reduced by channelization of connected streams and the clearing of surrounding bottomland hardwood forests for agriculture. In response to the habitat impairment caused by sedimentation, several alternatives have been considered to

restore the aquatic habitat of Lake St. Joseph. The alternatives include: (1) raising the crest elevation of the outlet structures to hold water to higher elevations, (2) removal of sediment from the lake bottom, (3) pumping water from the Mississippi River to maintain water level near pool stage, and (4) a combination of these alternatives.

The Louisiana Department of Wildlife and Fisheries (LDWF) expressed concern about potential pumping and dredging. The pumping proposal included plans to pump water through nearby Lake Bruin, which may have posed a risk to the fisheries, recreational value, and its use as a public water supply. It was recommended to use another water source, such as Lake Yucatan, or well water. The primary concern over dredging or sediment removal included the potential disturbance and re-introduction of contaminants to the aquatic food chain. Other concerns included potential disturbance of wildlife species, detrimental effects to downstream waters, and the belief that the benefits of these measures would be severely limited if irrigation and sediment inflows continue at the present rate. Other obstacles to the proposed plan were the potential flooding of private piers and the high cost to fulfill these projects. The LDWF subsequently made the recommendation to establish forested or grass buffer strips around the lake to reduce sediment deposition and improve water quality. Currently, the St. Joseph Recreation and Water Conservation District is investigating raising the lake level one foot for the enhancement of fisheries and recreation. This would be accomplished by raising the level of the spillway.

Section 319 Project

Background: Section 319 of the Clean Water Act requires states to develop a nonpoint source (NPS) pollution management plan to reduce and control nonpoint sources of pollution that contribute to water quality problems. Louisiana's NPS program is administered by the Louisiana Dept. of Environmental Quality (LDEQ) and is a collaborative effort with many partners (LSU AgCenter, Natural Resource Conservation Service (NRCS), Louisiana Dept. of Natural Resources (DNR), U.S. Dept. of Agriculture (USDA), Farm Bureau, local Soil and Water Conservation Districts, etc...). Through partnerships and close coordination with USDA and LSU AgCenter (extension branch of the Louisiana Dept. of Agriculture and Forestry (LDAF)), LDEQ will implement best management plans (BMP's) in agricultural watersheds throughout LA.

Lake St. Joseph has been designated an impaired oxbow lake and is currently on LDEQ's 303 (d) list, which is a list of impaired and threatened waters that the Clean Water Act requires all states to submit for EPA approval every two years. States provide a long term plan for completing Total Maximum Daily Load (TMDL) studies within 8-13 yrs from first listing. The goal is for Lake St. Joseph to be removed from this list by 2016.

Because Lake St. Joseph is a priority NPS impaired waterbody for partial or full restoration by 2016, a Rapid Water Quality Assessment was initiated by LDEQ in 2011 to determine sites for long term water quality monitoring. In February, 2012, LSU AgCenter initiated monthly water quality monitoring at 7 sample sites to monitor DO, nutrients, and sediments, identify discharges that deliver NPS pollutants, and evaluate effectiveness of BMP's implemented by USDA and LDAF. This will also provide updated baseline data in support of the Watershed Implementation Plan and proposed BMP's aimed at reducing NPS pollution.

MANAGEMENT ISSUES

AQUATIC VEGETATION

The aquatic vegetation community on Lake St. Joseph primarily consists of the submerged species coontail (*Ceratophyllum demersum*), the floating species water hyacinth (*Eichhornia crassipes*), and the emergent species American lotus (*Nelumbo lutea*). Historically, water hyacinth has been the most problematic species, forming large mats in various areas of the lake, especially the Black River and Clark Bayou areas. Coontail, being a native submersed species, is considered to be beneficial to fisheries when coverage is not excessive. Coverage in Lake St. Joseph has actually been less than desirable, probably due to the high turbidity of the water. The coverage of American lotus has been expanding in the lake over the past few years. A photo of the recent lotus coverage on the southern end of the lake is shown in Figure 2. The lotus has some beneficial qualities in that it provides cover for fish, shade to keep water temperatures down, and provides dampening of waves which reduces shoreline erosion. The coverage, though, had reached levels of concern, requiring a series of herbicide applications to reduce it to a desirable level.



Figure 2. Photo of American lotus coverage on the southern end of Lake St. Joseph, LA 2012.

Vegetation Type Map

No formal type maps of aquatic vegetation have been conducted on Lake St. Joseph, though maps of the American lotus coverage were developed in 2009, 2010, and 2013 (Figures 3 and 4). Total coverage has decreased since 2009.

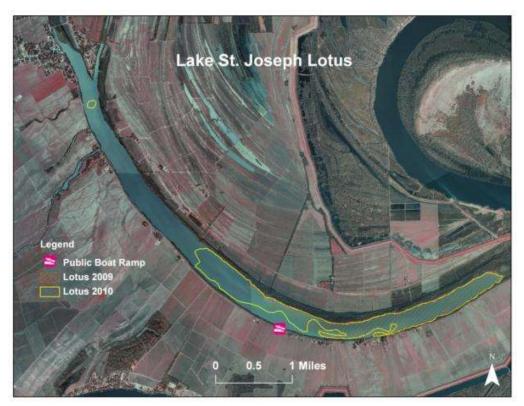


Figure 3. Coverage of American lotus in Lake St. Joseph, LA in 2009 and 2010.

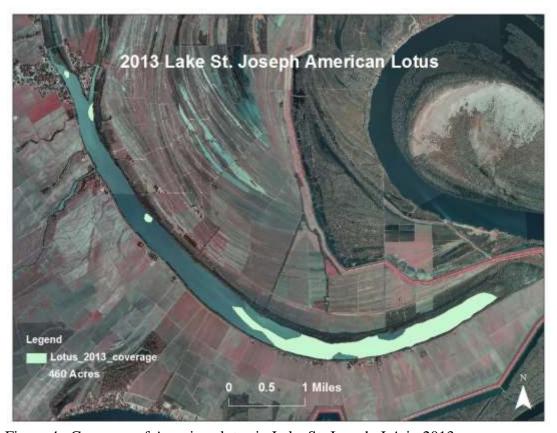


Figure 4. Coverage of American lotus in Lake St. Joseph, LA in 2013.

Vegetation Biomass

No biomass surveys of aquatic vegetation have been conducted on Lake St. Joseph.

Treatment History by Year

Biological

None

Physical

None

Chemical

Routine spraying of contact herbicides for control of floating and emergent species has been conducted by LDWF since the 1960's. Species most commonly treated include water hyacinth, American lotus, and alligator weed (Alternanthera philoxeroides). Recent efforts have been primarily for the purpose of reducing the coverage of American lotus to a more desirable level and eliminating water hyacinth from areas where it has formed large surface mats. Table 1 shows the number of acres sprayed for these two species in recent years. For American lotus control, the herbicides 2,4-D (0.5 gal./acre) and glyphosate (0.75 gal./acre) have been the most commonly used. The herbicide 2,4-D is more cost efficient, though it cannot be used without a waiver during the period of March 15 – Sept. 15 imposed by the Louisiana Department of Agriculture and Forestry to protect agricultural operations in certain parishes. The granting of a waiver is an unlikely option on Lake St. Joseph due to its proximity to row crops. The same herbicides and rates have also been used to control water hyacinth on the lake. Diquat dibromide (0.75 gal/acre), a contact herbicide, has also been used during cooler periods when it is more effective than the aforementioned systemic Spray crews are now equipped with surface drive motors, which allows improved access to the numerous shallow areas in the lake. Herbicide applications by aircraft for lotus control have been made in recent years and have proven to be much more efficient than treatment by boat. The LDWF provided a helicopter for spraying in 2009, while the Lake St. Joseph Recreation and Water Control District has provided a crop dusting plane for herbicide application for water hyacinth control in 2007 and lotus control in 2011, 2012, and 2013. They also provided their own herbicide in 2011, whereas LDWF has provided herbicide for all of the other applications.

Table 1. Acres of American lotus and water hyacinth treated with herbicide on Lake St. Joseph, 2005 - 2013.

		Species	
Year	American Lotus	American Lotus	Water Hyacinth
	(boat)	(aircraft)	
2005	18	0	188
2006	31	0	192
2007	177	0	161
			(250 by aircraft)

2008	159	0	153
2009	0	380	152
2010	173	0	37
2011	162	200*	12
2012	81	500	90
2013	35	300	142

^{*}treatment conducted by Lake St. Joseph Recreation and Water Control District

HISTORY OF REGULATIONS

Recreational

State recreational fishing regulations apply, with the exception of special regulations pertaining to the use of yo-yo's and trotlines. These special regulations were amended for Lake St. Joseph in 2013, when yo-yo and trotline restrictions became standardized for certain Louisiana waterbodies. Recreational fishing regulations may be viewed at the link below: http://www.wlf.louisiana.gov/fishing/regulations

Commercial

Statewide commercial fishing regulations apply. Commercial fishing regulations may be viewed at the link below: http://www.wlf.louisiana.gov/fishing/regulations

DRAWDOWN HISTORY

The only documented drawdown of significance was in 1963, when Lake St. Joseph was nearly completely drained. The purpose of that drawdown is unknown.

FISH KILLS/ DISEASE HISTORY/ LMBV

Lake St. Joseph has had numerous fish kills since the current pool stage was established in 1960. The majority of the kills have been attributed to low dissolved oxygen during summer months. Extremely high water temperatures and dense algal blooms, which contribute to the natural turbidity of the water, are common factors in the majority of the kills. These events are unavoidable in the lake's current condition. Agricultural irrigation, which further lowers the lake level, also plays a significant role in creating these undesirable conditions. Fortunately, most of the fish kills have not been large scale. Major fish kills did occur in the years of 1998 and 2000. In 1998, an estimated 750,000 fish were killed due to a combination of high water temperatures, low water levels, and a dense algal bloom. In 2000, a "massive" kill was reported to have been caused by extremely low water levels due to the ongoing drought. Other documented fish kills occurred in July 1969 and July 2010, though no details are available.

CONTAMINANTS/ POLLUTION

There are no current fish consumption advisories in effect for Lake St. Joseph.

BIOLOGICAL

Fish samples

Few fisheries samples have been conducted in Lake St. Joseph. Biomass sampling with the use of the fish toxicant, rotenone was conducted in 1964, 1979 and 1987. A biomass sample consists of applying rotenone within a 1-acre square block off net and collecting all fish that float within a 2-day period. Three stations (sampling locations) were sampled in 1964, two were sampled in 1979, and only one station was sampled in 1987. A single seine sample was conducted at the public boat ramp in 2008. Seining is an effective method to evaluate the spawning success of certain species and availability of forage species. Electrofishing was conducted at three stations in spring of 2008, and at the same stations in spring and fall of 2012. An electrofishing sample consists of applying DC current into the water for a period of 15 minutes with use of a boat mounted prod pole. Typically, only black bass and crappie are collected for measurements, though a special forage sample is conducted during the fall sampling period, when all species are collected to determine availability of forage for predatory species. The forage samples also provide information on fish community assemblages (presence and abundance of other species).

Stocking history

In 1965, Lake St. Joseph was stocked with 650,000 bluegill (*Lepomis macrochirus*), 120,000 black crappie (*Pomoxis nigromaculatus*), and 75,000 largemouth bass (*Micropterus salmoides*). The lake was stocked again in 1999 with 85,500 bluegill and 19,979 Florida largemouth bass (*M. floridanus*).

Scheduled fish stockings

No fish stockings are currently scheduled.

Species profile

A post impoundment list of fishes is found in **APPENDIX B**.

Genetics

No genetic analyses have been performed on largemouth bass from Lake St. Joseph.

<u>Threatened/endangered/exotic species</u>

No threatened, endangered, or exotic fish species are known to exist in Lake St. Joseph.

CREEL

No angler surveys have been conducted on Lake St. Joseph.

HYDROLOGICAL CHANGES

Lake St. Joseph is a historic channel of the Mississippi River and has been separated from the active channel for approximately 3,000 years. Being in close proximity to the current Mississippi River channel, the lake became inundated regularly during flood events prior to the construction of the current levee system in the 1920's. Prior to 1960, when a control structure was constructed in Clark Bayou, the lake experienced frequent backwater flooding as waters from nearby bayous flowed freely into and out of the lake. Lake St. Joseph is now maintained at 66.0 ft. MSL and annual fluctuations have been primarily limited to those caused by summer evaporation and crop irrigation. Natural water fluctuation has been significantly reduced.

WATER USE

Water Supply

Lake St. Joseph is used as a water source for irrigation of adjacent croplands.

Recreational:

1. Fishing -

open to public

2. Skiing -

no designated area, not recommended due to shallow nature of lake

3. Scuba Diving -

not suitable (shallow, murky water)

4. Swimming -

no public swimming area

4. Boating –

not popular due to shallow nature of lake

6. Hunting -

open to public with no special regulations

APPENDIX A

(return to authorization)

Creation of Lake St. Joseph Recreation and Water Conservation District

ENROLLED Act 328

Regular Session, 2003 HOUSE BILL NO. 712 BY REPRESENTATIVES HAMMETT, KENNEY, AND THOMPSON

AN ACT

To enact Part XXVI of Chapter 13 of Title 38 of the Louisiana Revised Statutes of 1950, to be comprised of R.S. 38:3087.191 through 3087.207, relative to Lake St. Joseph in Tensas Parish; to create the Lake St. Joseph Recreation and Water Conservation District; to create and provide for a board of commissioners of such district; to provide for the powers and duties of the district and the board; to authorize the board to levy taxes and parcel fees, issue bonds, and incur debt; to authorize the board to promulgate rules and regulations to accomplish the purposes of the district and to provide for the enforcement thereof; to provide for violations and penalties; to provide relative to the powers and duties of the Department of Transportation and Development with respect to the district; to provide for the regulation of commercial establishments; to provide for creation and construction of playgrounds and recreational facilities; to provide relative to mineral leases; and to provide for related matters.

Notice of intention to introduce this Act has been published as provided by Article III, Section 13 of the Constitution of Louisiana.

Section 1. Part XXVI of Chapter 13 of Title 38 of the Louisiana Revised Statutes of 1950, comprised of R.S. 38:3087.191 through 3087.207, is hereby enacted to read as follows: PART XXVI. LAKE ST. JOSEPH RECREATION AND WATER CONSERVATION DISTRICT §3087.191. Creation

There is hereby created a recreation and water conservation district to be known as the "Lake St. Joseph Recreation and Water Conservation District".

§3087.192. Location

The district shall be comprised of the area of Lake St. Joseph and the Black River Area and all of the land encompassed by Louisiana Highways 605 and 608 surrounding Lake St. Joseph and the Black River Area.

§3087.193. District as political subdivision and body corporate; purpose and powers A. The district shall be a political subdivision of the state of Louisiana which shall have for its purpose the preservation, promotion, and development of the wealth and natural resources of the district by the conservation of the soil and water of Lake St. Joseph for agricultural, recreational, commercial, and sanitary purposes and by the regulation of aquatic plant growth.

B. It shall constitute a body corporate in law with all powers, rights, privileges, and immunities of a corporation. It shall have the power to sue and be sued, to buy and sell, to levy taxes, to negotiate and execute contracts, and to incur debts and issue negotiable bonds in payment thereof under and in accordance with law. It shall have the authority to acquire by purchase, donation, or

otherwise every type and specie of property, including servitudes and rights-of-use, necessary to its purpose, and to lease, build, operate, and maintain any works or machinery designed to accomplish the purposes of the district.

C. It shall have complete control over the supply of fresh water from Lake St. Joseph which shall be administered for the benefit of the persons residing or owning property within the district, and if it should be for the benefit of the district, it shall have the authority to sell such water for irrigation, municipal, and industrial uses both within and outside the district. However, the district shall have no authority to regulate or control any use by any municipality, district, or other person of such water supply which use was being made by such municipality, district, or other person on August 15, 2003, including no authority to charge or collect any fee or charge therefor.

D. The district may cooperate and contract with the government of the United States or any department or agency thereof and accept grants and donations of property and money therefrom. It may cooperate with the state of Louisiana or any political subdivision, department, agency, or corporation of the state for the management of the waters of Lake St. Joseph and the construction, operation, and maintenance of facilities designed to accomplish the purpose for which the district is created on any basis including the matching of funds and by participating in projects authorized by any federal or state law as it shall see fit.

§3087.194. Board of commissioners, appointment; tenure; vacancies; compensation; domicile A. The district shall be governed and controlled by a board of seven commissioners, each of whom shall be a qualified elector of the state of Louisiana, owning property within the district. At least five commissioners shall reside in Tensas Parish, at least four of whom shall reside in the district. Two commissioners may reside outside of Tensas Parish.

- B.(1) The initial members of the board of commissioners shall be appointed by the Tensas Parish Police Jury. All members shall be appointed from a list of no more than ten names submitted by the mayor and board of aldermen of the town of Newellton.
- (2) The initial members of the board shall serve as follows: three commissioners shall serve a five-year term, two commissioners shall serve a three-year term, and two commissioners shall serve a one year term. Commissioners shall draw lots for their initial terms at the first commission meeting. Thereafter, all commissioners shall serve five-year terms.
- (3) After the initial appointments, upon expiration of a term of a member of the board of commissioners, the police jury shall appoint a successor from a list of two names submitted by the board of commissioners. A commissioner may not serve more than two consecutive terms of any length, even if one term is shorter than five years. Any vacancy in the office of commissioner due to death, resignation, or any other cause other than expiration of a term of office shall be filled by the president of the board with majority approval of the board for the remainder of the unexpired term.
- C. Members of the board of commissioners shall receive no compensation for their services.
- D. The board shall be domiciled at Newellton, Louisiana.

§3087.195. Oaths

Before entering upon his official duties, each member of the board of commissioners shall take the oath of office provided by Article X, Section 30 of the Constitution of Louisiana before an officer authorized by law to administer oaths.

§3087.196. Election of officers

Immediately after the members of the board of commissioners have been appointed, or as soon thereafter as is practicable, they shall meet and organize by electing from their number a

president, vice president, and secretary who shall perform the duties normally required of such officers.

§3087.197. Powers of the board

A. In order to accomplish the purposes for which the district is created, the board of commissioners may:

- (1) Purchase, acquire by donation, hold, sell, and convey immovable and movable property and execute such contracts as it may deem necessary or convenient to enable it to properly carry out the purposes for which it is created.
- (2) Acquire servitudes and rights-of-use by purchase, by donation, and by assignment for the district or otherwise.
- (3) Assist in conserving soil and water and in developing the water resources of the district, provided nothing shall be done to interfere with districts or municipalities previously organized under Louisiana law.
- (4) Cooperate with the state Department of Transportation and Development and other state agencies in the maintenance or improvement and the construction of any works or improvements for the control, retention, diversion, or utilization of water or to retard runoff of water and soil erosion; in the construction of any ditch, channel improvement, dike, dam, or levee; and in the repair, improvement, and maintenance of any of said improvements or structures.
- (5) Manage and control the water level and growth of aquatic plants in the lakes.
- (6) Employ and hire secretarial, clerical, and other such personnel as may be necessary in the operation of the business of the district and fix their compensation; employ engineers, attorneys, and other professional personnel as necessary and fix their compensation.
- (7) Levy taxes, issue bonds, and incur indebtedness within the limitations prescribed by the constitution and laws of Louisiana and in the manner prescribed thereby.
- (8) Cooperate and contract with persons, firms, associations, partnerships, private corporations, cities of this state, or other public corporations, and with any other local, state, or federal agencies for the sale or use of any waters impounded by the district.
- (9) Grant franchises to telephone, telegraph, cable, and electric power companies and grant franchises for the purposes of laying gas, sewer, electricity, or other utilities to supply the inhabitants or any person or corporation with gas, water, sewerage, and electricity, when such construction is within the district. Nothing contained in this Part shall affect the vested rights of any corporation which, pursuant to R.S.45:781(A), has constructed, prior to August 15, 2003, and maintains and operates telegraph, telephone, and other lines for the transmission of intelligence.
- (10) Appoint, hire, designate, and empower wardens, rangers, patrols, and such other personnel as may be deemed necessary by the commission for the enforcement of such regulations as may be promulgated and adopted by said commission.
- (11) Do and perform any and all things necessary or incidental to the fulfillment of the purposes for which the district is created.
- B. The Lake St. Joseph Recreation and Water Conservation District may have, with respect to the improvements and facilities maintenance of the district, the advice of the Department of Transportation and Development, and it may request from time to time the assistance of the department to make such surveys, inspections, and investigations, render such reports, estimates, and recommendations, and furnish such plans and specifications as the board of commissioners of the district may request.
- C. The district may incur debt for any one or more of its lawful purposes, issue in its name negotiable bonds or certificates of indebtedness evidencing such debt, and provide for the

security and payment thereof as follows:

- (1) To issue certificates of indebtedness maturing within one year from date of issuance to evidence money borrowed in anticipation of current revenues for the administration, operation, construction, and maintenance costs and expenses of the district, which certificates shall be payable in principal and interest from any available income, revenues, fees, or taxes pledged to their payment by the district.
- (2) To issue bonds substantially in the manner set forth in Article VI of the Constitution of Louisiana, and other authority supplemental thereto, particularly Part III of Chapter 4 of Subtitle II of Title 39 of the Louisiana Revised Statutes of 1950. Such bonds shall be payable from an ad valorem tax on all taxable property in the district sufficient to pay such bonds in principal and interest when approved by vote of a majority in number of the qualified electors voting on the proposition at an election held for that purpose. Such bonds shall be issued in the manner provided by the law pursuant to which they are being issued, and the maximum interest rate for the bonds shall be that prescribed by such law. The bonds shall be issued in such amount or amounts as the board of commissioners shall determine. However, the principal amount of all such bonds outstanding as of the date of the issuance of any new bonds shall never exceed ten percent of the assessed valuation of the taxable property within the district, to be ascertained by the last assessment roll of record in Tensas Parish.
- (3) The district shall have additional authority to levy taxes under the provisions of Article VI, Section 32 of the Constitution of Louisiana, for the purpose of improving, operating, and maintaining its facilities, provided any such tax shall first be approved at an election held for said purpose in accordance with the Louisiana Election Code.
- (4) The copy of any resolution levying a tax, certified by the secretary of the board of commissioners of said district, shall be transmitted to the tax assessor of Tensas Parish on or before the first of the year in which the tax is to be assessed and collected, and it shall be the duty of the assessor to assess the tax and extend the same upon the tax rolls of the parish. The tax shall be collected by the sheriff and ex officio tax collector of Tensas Parish in the same manner as taxes levied by the parish. Taxes assessed shall constitute the same liens upon the property assessed, shall bear the same penalties, and collection thereof shall be enforced in the same manner and at the same time as parish taxes.

§3087.198. Parcel fee

- A.(1) The Lake St. Joseph Recreation and Water Conservation District may levy and collect a parcel fee on improved parcels within its boundaries. The parcel fee shall be imposed by resolution or ordinance of the board of commissioners of the district only after the question of the imposition of the parcel fee and the purpose, rate, and duration of such fee has been approved by a majority of the qualified electors of the district voting at an election held therein. The proceeds from the levy of said parcel fee shall be expended for costs of operation of the district, including management and control of water levels and aquatic plant growth within the district and protection and preservation of the works, improvements, and properties owned or controlled by the district, prescribing the manner of their use by public corporations and persons, and preserving order within and adjacent thereto. Any parcel fee imposed pursuant to this Section shall be levied and collected and be due and owing annually. Such fee may be carried on the tax rolls for Tensas Parish and collected at the same time as parish ad valorem taxes.
- (2) If any parcel fee is not paid when due, the district shall proceed against the parcel for collection of the amount of the fee unpaid and delinquent, any collection costs incurred by the district plus interest at a rate not exceeding twelve percent on the unpaid amount of the parcel fee, and in the event legal proceedings are necessary to effect collection, court costs and

reasonable attorney fees. However, attorney fees shall be payable by the parcel owner only if demand by the board of commissioners has been made on said owner by certified mail, and such parcel owner has failed to pay the amount due within ten days after such demand.

- (3) A judgment obtained for nonpayment of a parcel fee, upon being recorded in the mortgage records of Tensas Parish, shall prime all other liens except those for taxes and prior recorded local or special assessments. If there are one or more property mortgages on such parcel and the mortgage holder or holders have notified the tax collector in the parish of such recorded mortgage in accordance with the requirements of R.S. 47:2180.1, the district, prior to proceeding against such parcel for failure to pay a parcel fee, shall give notice to each mortgage of the amount of the parcel fee due and owing on such parcel and that such fee must be paid within twenty days after mailing the notice or proceedings will be commenced against the parcel. The notice shall be sent to each such mortgage holder by certified mail, return receipt requested, or by personal or domiciliary service on such mortgage holder.
- B.(1) The district may incur debt and issue bonds payable from an irrevocable pledge and dedication of all or a portion of the proceeds of the parcel fee, provided that the question of funding said proceeds into bonds shall have been approved by a majority vote of the qualified electors of the district voting at an election held therein and the State Bond Commission has approved the issuance of the bonds. The question or proposition with respect to the funding of the proceeds of the parcel fee may be submitted at a separate election held for that purpose. The maturities of the bonds shall be so arranged that the total amount of principal, and interest falling due in such year on all bonds theretofore issued payable from such parcel fee, shall not exceed eighty percent of the estimated proceeds to be received from the levy of such parcel fee in the calendar year in which the bonds are issued.
- (2) The bonds may be sold at public or private sale and shall be issued pursuant to the provisions of a resolution adopted by the board of commissioners of the district, provided the bonds shall mature over a period not to exceed the period for which the parcel fee, the proceeds of which are to be used to pay principal and interest on the bonds, is authorized. The bonds and the income therefrom shall be exempt from taxation by the state and by any parish, municipality, or political subdivision thereof.
- C. The district may incur debt and issue certificates of indebtedness pursuant to the provisions of R.S. 33:2921 through 2925, subject to the approval of the State Bond Commission.
- D.(1) A "parcel" as used in this Section shall mean one or more lots, subdivided portions of ground, or individual tracts identified by an individual assessment number on the assessment rolls of Tensas Parish. A partial owner of a parcel shall be responsible for that proportion of the parcel fee equal to the proportion of the value of the entire parcel assigned to the partial owner on the assessment roll.
- (2) An "improved parcel" as used in this Section shall mean a parcel on which a permanent building suitable for residential or commercial use is situated.
- E. The district may create different classes of real estate and present to the voters a proposition to levy or impose different parcel fees for each class.
- §3087.199. Rules and regulations
- A. In order to accomplish the purposes of the district, the board of commissioners may make and enforce such rules and regulations as it shall deem necessary and advisable:
- (1) To manage and control the water level and the growth of aquatic plants in the lakes.
- (2) To protect and preserve the works, improvements, and properties owned or controlled by the district, prescribe the manner of their use by public corporations and persons, and preserve order within and adjacent thereto.

- (3) To prescribe the manner of building bridges, piers, boathouses, seawalls, roads, and fences, including fences for the control of livestock or other works in, along, or across any channel or extending into the lake.
- (4) To prescribe the manner in which natural or artificial drains, ditches, sewers, pipelines, or other works shall be adjusted to or connected with the works of the district or any watercourse therein and the manner in which the watercourses of the district may be used for sewer outlets for disposal of waste.
- (5) To prescribe the permissible uses of the water supply provided by the lake and to prevent the pollution or unnecessary waste of such water supply.
- (6) To prescribe or regulate the discharge into sewers of the district of any liquid or solid waste deemed detrimental to the works and improvements of the district.
- (7) To establish rules and regulations and cause them to be enforced with regard to activities engaged in upon Lake St. Joseph that are not regulated by the Louisiana Wildlife and Fisheries Commission.
- B. The board shall make recommendations to the Wildlife and Fisheries Commission for proposed regulations pertaining to hunting, fishing, trapping, water sports, boating, and the operation of any watercraft upon the proposed lake.
- §3087.200. Construction which would impede flow of water in lake prohibited; pollution defined and prohibited; penalties fixed for violations
- A.(1) No person or public corporation shall erect within the drainage area of the district any dam or reservoir upon any stream or watercourse which will affect the lake until a copy of the plans thereof has been filed with the board of commissioners and approved.
- (2) Whoever violates this Subsection shall be fined not less than five hundred dollars nor more than one thousand dollars or imprisoned for not more than sixty days, or both.
- B.(1) No person shall knowingly and willfully empty or drain or permit to be drained from any pump, reservoir, well, or oil field, into any stream or drain constituting the watershed of the lake, or from any stream within said district into said lake any oil, salt water, or other noxious, toxic, hazardous, or poisonous gas, liquid, or substance that would render the water unfit for irrigation or human consumption or would destroy aquatic life in the lake.
- (2) Each and every day that oil, salt water, or any other substance described in Paragraph (1) of this Subsection is permitted to flow into natural streams or drains that constitute the watershed of the lake shall constitute a separate and distinct offense.
- (3) Whoever violates this Subsection shall be fined not less than one hundred dollars nor more than one thousand dollars or imprisoned for not more than three months, or both.
- C.(1) No person shall:
- (a) Obstruct drainage channels which compose any drain or stream flowing into the lake by bridging them except in accordance with plans, specifications, and instructions prescribed by the board of commissioners of the district.
- (b) Construct dams, locks, or gates in drainage channels of the watershed of the lake or into the lake itself without permission of the commission.
- (c) Anchor rafts, crafts, fish traps, fish cars, and other obstacles in the channel of any stream, drain, or natural flow of the feeder streams of the watershed of the lake or the lake itself.
- (d) Float timber in the watershed of the lake.
- (2) Whoever violates this Subsection shall be fined not less than five hundred dollars nor more than one thousand dollars or imprisoned for not more than sixty days, or both.
- D.(1) No proprietor, owner, lessee, or possessor of land abutting upon the lake or along any public road paralleling the water line or contiguous to the lake shall in any manner close or place

any obstruction in any drain or ditch, whether on private property or on the public road or levee adjacent to the road, that will in any manner interfere with the effective, thorough, and continuous drainage into the lake.

(2) Whoever violates this Subsection shall be fined not less than five hundred dollars nor more than one thousand dollars or imprisoned for not more than sixty days, or both.

§3087.201. Supervision by Department of Transportation and

Development

All of the powers and duties relative to construction and letting of contracts for construction required to be advertised by R.S. 38:2211 and 2212 conferred upon the district shall be subject to and exercised under the supervisory control of the Department of Transportation and Development of the state of Louisiana, which department shall furnish to the district such engineering services as it shall require and may cooperate with the district in the construction of any work or facility considered necessary by the district and said department to the purposes of the district.

§3087.202. Contracts let by board

Any and all contracts of the district shall be let by the board of commissioners under the provisions of R.S. 38:2181 et seq.

§3087.203. Mineral rights

Whenever it shall become necessary for the district or the Department of Transportation and Development to acquire full ownership of any land for the purpose of constructing any work or facility within the district, the owner thereof in his own behalf or in behalf of his assigns in the event of a prior assignment may retain the mineral rights to such property together with the right to grant mineral leases and servitudes thereon. No form of prescription shall divest such owner or his assigns of these rights so long as the district or a department or agency of the state retains the ownership of the property, but should ownership pass into private hands, the prescription of nonuse provided by R.S. 31:27 shall apply as in the usual case.

§3087.204. Tax exemption; mineral leases unabridged

Should the district or the Department of Transportation and Development acquire a servitude, right-of-use, or title in full ownership to immovable property or any other property, such property shall not be subject to any ad valorem tax or tax of any nature by the state of Louisiana or any political subdivision thereof so long as such property is used for the purpose of the district. The provisions of this Part shall in no way abridge the right of any individual, person, firm, or corporation from whom a servitude or right-of-use may have been acquired to lease the land subject thereto for the production of oil, gas, or other minerals and to produce or cause to be produced oil, gas, or other minerals from such property so long as said leases are subject to the terms and conditions of the servitude executed in favor of the commission.

§3087.205. Playgrounds, parks, and other facilities

The board of commissioners may cause to be created and constructed playgrounds, picnic grounds, grounds for recreation, parks, and any and all other facilities to accommodate the public and to provide adequate access to the lake, as may, within the opinion of the board, become necessary. The board of commissioners shall also provide for the construction of public access boat ramps in the district to allow for and maintain public access to Lake St. Joseph for recreational purposes.

§3087.206. Regulation of commercial establishments

A. The board of commissioners may: (1) Establish and cause to be enforced rules and regulations pertaining to all commercial establishments that may be constructed for the purpose of making commercial use of the lake or its facilities. (2) License and permit such establishments and levy

and collect a fee, to be fixed by the commission, for the privilege of making commercial use of the facilities of the lake.

B. The rules and regulations established and promulgated by the board of commissioners pursuant to this Section shall provide penalties for any commercial establishment operating without a permit or license.

§3087.207. Audit

The district shall be audited pursuant to R.S. 24:513.

SPEAKER OF THE HOUSE OF REPRESENTATIVES PRESIDENT OF THE SENATE GOVERNOR OF THE STATE OF LOUISIANA APPROVED:

APPENDIX B

(return to species profile)

Fish Species Documented in Lake St. Joseph

AMIIDAE (Bowfin Family)

Bowfin, Amia calva (Linnaeus)

ANGUILLIDAE (Freshwater Eel Family)

American Eel, Anguilla rostrata (Lesueur)

APHREDODERIDAE (Pirate Perch Family)

Pirate Perch, Aphredoderus sayanus (Gilliams) *suspected

ATHERINIDAE (Silverside Family)

Brook Silverside, Labidesthes sicculus (Cope)

CATOSTOMIDAE (Sucker Family)

Bigmouth Buffalo, *Ictiobus cyprinellus* (Valenciennes)
Black Buffalo, *Ictiobus niger* (Rafinesque)
Smallmouth Buffalo, *Ictiobus bubalus* (Rafinesque)

Spotted Sucker, Minytrema melanops (Rafinesque) *suspected

CENTRARCHIDAE (Sunfish Family)

Bluegill, *Lepomis macrochirus* (Rafinesque)

Black Crappie, *Pomoxis nigromaculatus* (Lesueur)

White Crappie, *Pomoxis annularis* (Rafinesque)

Largemouth Bass, Micropterus salmoides (Lacépède)

Redear Sunfish, *Lepomis microlophus* (Günther)

Green Sunfish, *Lepomis cyanellus* (Rafinesque)

Longear Sunfish, *Lepomis megalotis* (Rafinesque)

Warmouth, Lepomis gulosus (Cuvier)

Orangespotted Sunfish, Lepomis humilis (Girard)

CLUPEIDAE (Herring Family)

Gizzard Shad, Dorosoma cepedianum (Lesueur)

Threadfin Shad, *Dorosoma petenense* (Günther)

CYPRINIDAE (Minnow Family)

Common Carp, *Cyprinus carpio* (Linnaeus) Golden Shiner, *Notemigonus crysoleucas* (Mitchill) Bullhead Minnow, *Pimephales vigilax* (Baird and Girard) Blacktail Shiner, *Cyprinella venusta* (Girard)*suspected Pugnose Minnow, *Opsopoeodus emiliae* (Hay)

FUNDULIDAE (Topminnow Family)

Golden Topminnow, Fundulus chrysotus (Günther)*suspected Blackstripe Topminnow, Fundulus notatus (Rafinesque)*suspected Blackspotted Topminnow, Fundulus olivaceus (Storer)*suspected Southern Starhead Topminnow, Fundulus nottii (Agassiz)*suspected

ICTALURIDAE (Freshwater Catfish Family)

Yellow Bullhead, *Ameiurus natalis* (Lesueur) Black Bullhead, *Ameiurus melas* (Rafinesque) Channel Catfish, *Ictalurus punctatus* (Rafinesque) Blue Catfish, *Ictalurus furcatus* (Rafinesque) Flathead Catfish, *Pylodictis olivaris* (Rafinesque) Tadpole Madtom, *Noturus gyrinus* (Mitchill)

LEPISOSTEIDAE (Gar Family)

Spotted Gar, *Lepisosteus oculatus* (Winchell) Longnose Gar, *Lepisosteus osseus* (Linnaeus)

POECILIIDAE (Livebearer Family)

Mosquitofish, *Gambusia affinis* (Baird and Girard)

MORONIDAE (Temperate Bass Family)

Yellow Bass, *Morone mississippiensis* (Jordan and Eigenmann)

SCIAENIDAE (Drum Family)

Freshwater Drum, *Aplodinotus grunniens* (Rafinesque)